

Application No. 10/618,820
Amendment dated November 28, 2005
Reply to Office Action of October 4, 2005

Docket No.: 0941-0788P

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AMENDMENTS TO THE ABSTRACT

Please replace the current Abstract of the Disclosure with the one attached to this Amendment.

ABSTRACT OF THE DISCLOSURE

A method and apparatus for gray level dynamic switching. The method is applied to driving a display with at least one pixel. In the method of the present invention, a gray level sequence S_G is provided. S_G sequentially represents two or more desired gray levels $G_o(1), \dots, G_o(T)$ of the pixel at consecutive time frames $1, \dots, T$ and comprises a current gray level $G_o(t)$ and a previous gray level $G_o(t-1)$ corresponding to time frames t and $t-1$, respectively. Then, the pixel is driven with an optimized driving force $V_d(t)$ to change the pixel forward to a state corresponding to $G_o(t)$ according to $G_o(t)$ and $G_o(t-1)$. In the present invention, the optimized driving voltage $V_d(t)$ is determined by equations of $V_d(t) = V_o(t-1) + ODV$ and $V_d(t) = a \times G_d(m)^3 + b \times G_d(m)^2 + c \times G_d(m) + d$, wherein the voltage ODV is a minimum voltage capable of obtaining one gray level transition in a determined response time.